

## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<b>(51) International patent classification<sup>6</sup>:</b>  C12N 15/82, 9/26, 15/54, A01H 5/00, C08B 30/00	<b>A1</b>	<b>(11) International publication number:</b> WO 00/08185  <b>(43) International publication date:</b>  17 February 2000 (17.02.00)
<b>(21) International application number:</b> PCT/EP99/05523  <b>(22) International filing date:</b> 30 July 1999 (30.07.99)  <b>(30) Data relating to the priority:</b> 198 36 099.1 31 July 1998 (31.07.98) DE  <b>(71) Applicant (for all designated States except US):</b> HOECHST SCHERING AGREVO GMBH [DE/DE]; Miraustrasse 54, D-13509 Berlin (DE).  <b>(72) Inventor; and</b> <b>(75) Inventor/Applicant (US only):</b> FROHBERG, Claus [DE/DE]; Blankenhainer Strasse 17, D-12249 Berlin (DE).		<b>(81) Designated states:</b> AE, AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GD, GE, HR, HU, ID, IL, IN, IS, JP, KG, KP, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, TJ, TM, TR, TT, UA, US, UZ, VN, YU, ZA, ARIPO Patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian Patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European Patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI Patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).  <b>Published</b> With the International Search Report. Before expiry of the period provided for amending the claims, will be republished if such amendments are received.

As printed

**(54) Title:** NUCLEIC ACID MOLECULE CODING FOR BETA-AMYLASE, PLANTS SYNTHESIZING A MODIFIED STARCH, METHOD OF PRODUCTION AND APPLICATIONS

**(54) Bezeichnung:** NUKLEINSÄUREMOLEKÜLE KODIEREND FÜR BETA-AMYLASE, PFLANZEN, DIE EINE MODIFIZIERTE STÄRKE SYNTHETISIEREN, HERSTELLUNGSVERFAHREN UND VERWENDUNGEN

**(57) Abstract**

The present invention relates to nucleic acid molecules coding for a protein with beta-amylase activity from potato and to a method for the production of transgenic plant cells and plants synthesizing a modified starch. The invention also relates to vectors and host cells containing the nucleic acid molecules according to the invention, the plant cells and plants produced using the method according to the invention and the starch synthesized by the plant cells and plants according to the invention. The invention also relates to a method of production of said starch.

